

Wintertime precipitation in the United States in the observational data set and as simulated by the climate models at three different resolutions: 300 km, 75 km, and 50 km.

Simulations focus on climate

By Anne M. Stark
NEWSLINE STAFF WRITER

Lab atmospheric scientists have performed the first global climate simulations with spatial resolutions of roughly 50 kilometers (30 miles). They will be used to

study the effects of global changes in specific geographical regions and the societal impacts of climate

Typical global climate simulations use spatial resolutions of about 300 km (186

See CLIMATE, page 12

Anastasio testifies on NNSA role in homeland security

Director Michael Anastasio testified on the role of the National Nuclear Security Administration in homeland security before the Senate Energy and Natural Resources Committee Wednesday. Anastasio joined several other lab directors and newly appointed acting head of the National Nuclear Security Administration Linton Brooks on two panels that testified.

“Defending the nation from terrorism, espe-

See TESTIMONY, page 9

Director: ‘Let’s make great things happen’

As the Laboratory celebrates 50 years of scientific and technological innovation, the opportunity has never been greater to expand on those achievements “and have another great 50 years.”

See DIRECTOR, page 9

Special ceremony, reception will honor Bruce Tarter

A special ceremony to honor former Director Bruce Tarter will be held at 3 p.m. Thursday, July 18, in the Bldg. 123 auditorium. All employees are invited to the ceremony, as well as a reception that will follow in the West Café.

Tarter, the eighth director of the Lab, served for more than eight years, one of the longest tenures at the Lab. He now serves as the Lab’s associate director at large.

Director Michael Anastasio will provide opening remarks. Presenters include Camille Yuan-Soo Hoo, manager of DOE/NNSA’s Oakland Operations Office; John McTague, vice president of Laboratory Management for the University of California; Bob Kuckuck, the acting principal deputy administrator for NNSA and the former Lab deputy director of Operations, and Everett Beckner, deputy administrator for Defense Programs, NNSA.

Tarter will provide closing remarks.

Tauscher task force explores vulnerabilities

By Lynda Seaver
NEWSLINE STAFF WRITER

Should terrorism strike in the Bay Area, Rep. Ellen Tauscher wants to be sure regional emergency responders will have the tools and resources they need to answer the call.

Tauscher has assembled a task force of what she calls “smart people,” to look at the Bay Area’s

various vulnerabilities and provide solutions. That task force includes Harry Vantine of the Lab’s Counterterrorism and Incidence Response, Ron Buckhout from Hazards Control, Pleasanton Mayor Tom Pico, as well as representatives from the National Guard, Parks Reserve Forces Training Area in Dublin, Contra Costa County and

See TAUSCHER, page 9

‘Unique partnership’ between Davis, Lab earns designation as National Cancer Institute

By Claudia Morain & Stephen Wampler

SACRAMENTO — The nation’s first large-scale partnership between a university cancer center and a national laboratory, Lawrence Livermore, has achieved National Cancer Institute designation, it was disclosed last week.

Announcement of the coveted NCI honor for the UC Davis Cancer Center was made at the Sacramento facility on July 2 during a press conference with high-level California political officials.

See CANCER, page 11

Researchers win PECASE honors

By Ali Carrigan
NEWSLINE STAFF WRITER

Two researchers nominated by the Lab have been recognized by the White House as its foundation for the future.

Mark Herrmann, a physicist in X Division, and ASCI Flash employee Paul Ricker were

among the 60 winners of the Presidential Early Career Award for Scientists and Engineers (PECASE). The two were notified last October that they won, and will receive the awards today in a ceremony at the White House.

The PECASE is awarded each

See PECASE, page 8



1978-79: ARAC & Morning Light

— Pages 3-4



Davis beams into retirement

— Page 5



Engineering Lab history

— Page 7



LAB COMMUNITY NEWS

Weekly Calendar

Technical Meeting Calendar, page 4

Saturday
13

There will be a **scheduled power outage** from 7 a.m. Saturday to 3 p.m. Sunday in the following locations: Bldgs. 211, 214, 216, 217, 218, 311, 313, 314, 315, 316, 321 and 329; and Trailers 2127, 2180 and 3180. There will be a scheduled outage from 7 a.m. to 11 a.m. on Saturday in the following locations: Bldgs.: 423, 431, 433, 435, 436, 439 and 446; and Trailers: 4302, 4316, 4325, 4377, 4378, 4383, 4384, 4387, 4388, 4392, 4407, 4440, 4442 and 4475. Contact: Mark Cardoza, 3-0490.

Monday
15

William H. Dunlop, program leader of the Proliferation Prevention and Arms Control Program, will discuss a variety of **Russian cooperative projects** that the Laboratory supports at 2 p.m. in the Bldg. 361 auditorium. This presentation will include the MPC&A program, work with Russian scientists, and support on other types of projects. Contact: Aaron Miles, 3-8131.

Tuesday
16

As part of the **Director's Distinguished Lecturer Series**, Yuri Oganessian of the Flerov Laboratory of Nuclear Reactions, Joint Institute for Nuclear Research in Dubna, Russia, will present "Synthesis of Superheavy Elements — the Dubna-Livermore Collaboration," at 3:30 p.m. in the Bldg. 123 auditorium. Director Michael Anastasio invites all employees to attend. (See article on page 8 for more information.)

...

Marsha McInnis will describe what is involved in creating an **effective poster presentation**, including understanding your audience, layouts, file conversions, PowerPoint, as well as several other guidelines and helpful tips, at 9 a.m. in Bldg. 415, room 218. For information and registration, go to <http://education.llnl.gov/sbb> or contact Barry Goldman at 2-5177.

Wednesday
17

In celebration of the Lab's 50th Anniversary, the Energy and Environment Directorate is sponsoring a talk by John "Jack" Gibbons entitled "**Will Our Future Be 'Up Hill' All the Way?**" at 10:30 a.m. in the Bldg. 543 auditorium. Gibbons is a former assistant to the president for science and technology and director of the Office of Science and Technology Policy.

...

A representative from **Fidelity Investments** will be on-site to meet with employees today and Thursday. Fidelity Investments are available to UC's 403(b) participants in addition to the UC-managed investment funds. To learn more about Fidelity's plans, call 1-800-642-7131 to set up an appointment with the Fidelity representative. Be sure to specify you are an LLNL employee.

Thursday
18

Learn about the **three secrets to being a successful scientist** — methods, manuscripts and money — during part three of this discussion for students. It will take place at 1:30 p.m. in Bldg. 219, room 163. This course will focus on the aspects of being a scientist not covered in subject specific courses. Contact: Barry Goldman, 2-5177.

Lab reigns on Danville Parade



ALI CARRIGAN/NEWSLINE

The Lab's float and drill team honoring the 50th anniversary of LLNL made its final parade appearance at the annual Danville Fourth of July Parade. Once again, the Lab team took top honors in the float category. Christine Mixan and Scott Wilson of Public Affairs' Community Relations coordinated the parade float and drill team appearances.

IN MEMORIAM

James Bell

Engineering retiree Jim Bell, one of the Laboratory's original employees, died July 7, following surgery for colon cancer. He was 84.

At the Lab's start, Bell headed the Mechanical Engineering (ME) Design Group, later becoming ME department head and then manager of Engineering in August 1962, under Duane Sewell of the Director's Office.

Bell played a major leadership role in the early days of LLNL weapons design. He was a great resource for other engineers, and was known as "an engineer's engineer." Bell began his career with a degree in electrical engineering, moving to the field of mechanical engineering after discovering mechanical problems with electronic equipment.

A Livermore resident for more than 50 years, Bell enjoyed sailing and deep sea fishing.

Bell is survived by three sons: Chris, Peter and David Bell; four stepchildren: Dina Dye, Peter Newell, Eric Newell, and Melissa Banning; and 14 grandchildren. He's also survived by three sisters, Medora Whittier, Mary Aripotch and Suzanne L'Hommdieu.

A memorial service will be held at 2 p.m. today (July 12) at the Chapel of the Callaghan Mortuary, 3833 East Ave., Livermore with the Rev. William Nebo officiating. A reception will follow. Bell will be buried in East Springfield, N.Y.

Barbara May McKinley

Services have been held for Lab retiree Barbara May McKinley, who died on June 18. She was 73.

Born in Caldwell, Idaho, McKinley worked at the Lab as a chemistry technician. She retired 16 years ago. During her retirement, she was an adventurer and traveler.

McKinley was an active member of the Lathrop Baptist church and lived her faith to the fullest extent.

She is survived by her sons, John and William; grandsons, Warren and Jeffrey; and a sister, Betty. She was preceded in death by her husband, William Robert McKinley.

Weekly Lab tours offered

Looking for something to do this summer for visiting friends and family? The Public Affairs Office offers a community tour of the Lab every Tuesday and Thursday morning from 9-11 a.m.

The tours are free and open to adults over 18. Two weeks advance registration is required. To sign up, go online to www.llnl.gov/PAO or call 4-6575.



Visitors Center closed for renovation

The Lab's Visitors Center will be closed for major renovation July 15 until mid-September. In the interim, visitors and employees may pick up information and literature about the Laboratory at the Public Affairs Office, Trailer 6526, during normal business hours. For more information, call 2-5815.

Newsline

Newsline is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

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Designers: Denise Kellom; Julie Korhummel, 2-9709

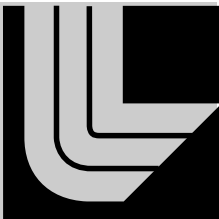
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Printed on recycled paper

1952 – 2002

MAKING HISTORY, MAKING A DIFFERENCE



Preparing for when satellites go bad

This is an ongoing feature highlighting the Lab’s 50-year history. On this page we look at 1978. On page 4 we look at 1979.

Cosmos 954, a Soviet satellite powered by a nuclear reactor, was losing orbital altitude, and the Laboratory was asked to help. Computer scientists with the exclusive use of a CDC-7600 computer spent sleepless days calculating the trajectory and figuring out how wide an area — called the footprint — would result from the impact of variously sized pieces of Cosmos, including perhaps 100 pounds of nuclear fuel.

The final orbit happened on January 24, 1978, and Operation Morning Light sprang into action. The Laboratory’s Nuclear Emergency Search Team (NEST) — a group of health physicists, chemists, nuclear physicists, and engineers — boarded a cargo plane loaded with equipment to look for and recover debris from Cosmos. It was scattered across a 30-mile-wide, 500-mile-long swath of the Northwest Territory of Canada, an intensely cold, desolate area populated by caribou and a few Inuit hunters. No single piece was much larger than a small trash can.

Out of the 120 U.S. personnel on Operation Morning Light, 39 were Laboratory people. Today, Laboratory personnel are still part of NEST, ready to go anywhere in the world at a moment’s notice.



NEST members from Livermore join the search for Cosmos 954, a fallen Soviet satellite, scattered across a 30-mile-wide portion of Canada.

1978

morning
LIGHT

Around the Lab

Shiva laser system

When the 20-beam Shiva laser was completed in 1978, it was the world’s most powerful laser. It delivered more than 10 kilojoules of energy in less than a billionth of a second in its first full-power firing. About the size of a football field, Shiva was the latest in a series of laser systems built over two decades, each five to 10 times more powerful than its predecessor.



Around the nation

- Ninety-eight percent of all American households have a television

Around the world

- First test-tube baby born
- Panama Canal Treaty approved by Senate
- Egypt–Israel Camp David summit
- Millions march in protest against Shah in Iran
- Karol Wojtyla (John Paul II) becomes first Polish pope
- Jim Jones and over 900 cult followers drink Kool-Aid spiked with cyanide in Jonestown, Guyana

in other

NEWS

Other news around
the Lab, the nation
and the world.

For more of the Lab’s rich history, check out the Timeline, located at: <http://www.llnl.gov/timeline/>



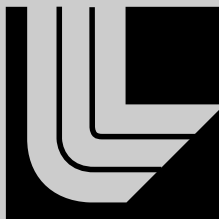
Coming soon. . . 2002

SCIENCE DAY

Join Lab employees as they discuss the Lab’s history and present the status of programs in the areas of bio defense, climate modeling, lasers and energy, astrophysics and more.

1952 – 2002

MAKING HISTORY, MAKING A DIFFERENCE



Responding to nuclear emergencies worldwide

This is an ongoing feature highlighting the Lab’s 50-year history. Here we take a look at the year 1979.

Livermore’s Atmospheric Release Advisory Capability (ARAC) had recently made the transition from a research project to pilot operations when on March 29, 1979, a call was received: “There’s been an accident at the Three Mile Island nuclear power plant. Could ARAC help, and how soon?”

Over the next 10 days, ARAC scientists worked 24 hours a day, seven days a week to predict possible levels and areas of radioactive fallout. Livermore scientists used meteorological and topographical information to successfully determine where the plume of radioactive materials was located and where it would travel.

After Three Mile Island, ARAC became a household name within the federal agencies responsible for responding to nuclear accidents. Recently, with third-generation software, they improved capabilities to simulate how a biological or chemical release would spread around complex urban environments, studying in detail Salt Lake City, the site of the 2002 Winter Olympics.

Now called the National Atmospheric Release Advisory Center, NARAC has expanded its role to respond to nuclear, chemical, biological, or natural hazardous material releases. The center has responded to more than 160 alerts and incidents in over two decades of operations.



ARAC scientist Marv Dickerson keeps members of the media informed about the status of radioactive releases from the Chernobyl nuclear power plant meltdown in 1986.

1979

response

ARAC

Around the Lab



Rotating target neutron source
The success obtained with magnetic confinement of plasmas in tokamak devices, first in the Soviet Union and then in the United States, led in the early 1970s to the decision to accelerate the U.S. program to produce fusion power reactors.

Around the nation

- Oil shortages mean long lines at gas stations

Around the world

- Three Mile Island nuclear-plant accident
- South Atlantic “flash” observed by satellite
- SALT II signed
- Ayatollah Khomeini becomes leader of Iran
- Americans taken hostage in Iran
- U.S.S.R. invades Afghanistan

in other

NEWS

Other news around
the Lab, the nation
and the world.

For more of the Lab’s rich history, check out the Timeline, located at: <http://www.llnl.gov/timeline/>

Sign up foreign national guests now for open house

In order for foreign national family members and guests and P-cleared foreign national employees to attend the Family Open House on Sept. 21 and 22, their Q- or L-cleared hosts must fill out “blue cards” for the foreign nationals they will

escort.
The cards are available from Wendy Bishop in the Foreign Visits and Assignments Office in Bldg. 274, room 1047, the badge offices at Livermore and Site 300, and through directorate offices. Completed blue cards must be turned in to Wendy Bishop’s office no later than Aug. 7 to allow time for processing and

approval. P-cleared foreign national employees should seek assistance from their organizations to identify Q- or L-cleared hosts for themselves and their guests for the Family Open House.
For more information, see the 50th Anniversary Website/Family Open House Planning Guide at http://www-r.llnl.gov/50th_anniversary/openhouse.htm. If you have additional questions, contact Wendy Bishop, 3-9135, or bishop9@llnl.gov.

CELEBRATING

50 YEARS

From Baghdad to Biosphere 2, Jay Davis retires

By Elizabeth Campos Rajs
NEWSLINE STAFF WRITER

When Jay Davis joined the Laboratory 31 years ago, he envisioned a successful career as a nuclear physicist, and held high hopes of building a world-class accelerator.

As it turns out, his achievements far surpassed his early dreams, with his career blazing new paths over the course of three decades that he could never have imagined back then.

"I've been from Baghdad to Biosphere 2, from the Security Council to the Situation Room in the White House. As an experimental physicist, you don't imagine doing that," he said incredulously, days before he retired from the Lab. "I was delighted to be here. I could not have imagined being anywhere else for 31 years. The people and programs here are the most exciting in the country."

Among the many highlights of his illustrious career, Davis was the founding director of the Lab's Center for Accelerator Mass Spectrometry (CAMS); founding director of the Earth and Environmental Sciences Directorate; a member of the United Nations' Special Commission inspecting Iraqi installations for possible nuclear weapons; founding director of the Defense Threat Reduction Agency; and most recently, the first National Security Fellow at the Lab's Center for Global Security Research.

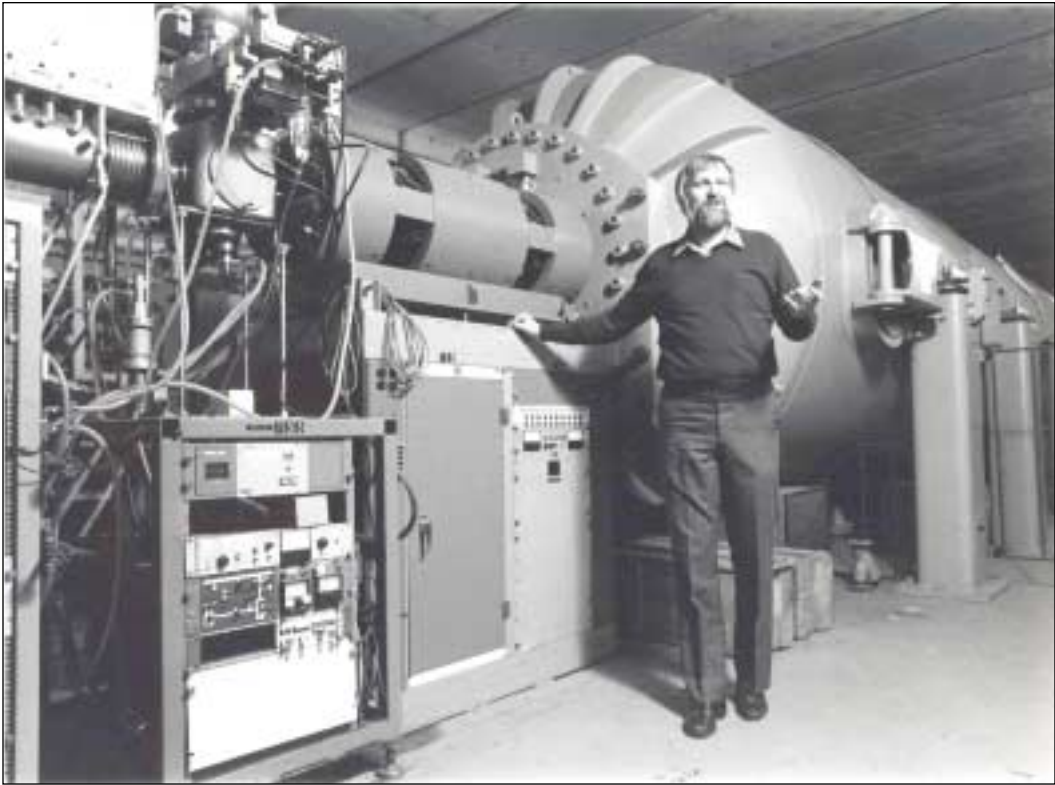
"Jay has been a great innovator. He can be an iconoclast, but he's a wonderful energizer," said Ron Lehman, director of the Center for Global Security Research. "We were really honored to have him work with us. He helped us think about future national security threats for our futures project. He brought a tremendous amount of experience back with him from Washington. Jay's clearly been a scientist who's gotten out of the ivory tower."

Karl van Bibber, deputy director of the Lab's LDRD program, was hired by Jay Davis 17 years ago into the old E-Division. "He was one of the people from whom I learned most what the Lab is really all about. He has tremendous insight into people and institutions," van Bibber noted, "if you could catch him in a serious mood."

"His offbeat sense of humor was legendary. You'd see him come down the hall, and people would just scatter. But he enjoyed being a lightning-rod himself, and he especially reveled in his Texas heritage. In fact, I don't think he ever paved his driveway."

When asked about his most significant accomplishments at the Lab, without hesitation, Davis says CAMS is at the top of his list, both for its scientific accomplishments as well as its very existence. When the multi-user accelerator was first proposed, the Lab had a declining budget and one that wouldn't support a new facility.

Always enterprising, Davis, who was then E Division leader, began visiting department heads and associate directors "selling shares" in the new accelerator. "I told them I would get it built and they would help



Jay Davis places the Center for Accelerator Mass Spectrometry at the top of his list of significant accomplishments during his 31-year career.

FILE PHOTOS

pay to run it. It was a very entrepreneurial endeavor," Davis recalled.

Construction started in 1986 and the CAMS was established in 1988.

To help save money, the designers used as many spare components as they could find. For example, the accelerator came from the University of Washington and a couple of the largest magnets had previous lives in an electron beam accelerator at Stanford. All of the biggest, heaviest parts were bought used at bargain basement prices, Davis recalled.

"By being poor, we had to be clever. We fought over every bolt that went into it. But if I had to redesign it today, I would change very little," he said.

Today, CAMS analyzes some 29,000 research samples annually — accounting for one quarter of the worldwide AMS analyses performed a year. Since 1999, the center has been recognized as the National Research Resource for biomedical applications of AMS and it is midway through a five-year grant awarded by the National Institutes of Health.

"Qualitatively and quantitatively, CAMS has changed science," Davis noted proudly. "It is more successful than I ever imagined possible."

He's also extremely proud of his tenure as the first director of the Defense Threat Reduction Agency within the Department of Defense. He was tapped to lead the agency in 1998 and served for three years. The agency was created to integrate and focus DoD capabilities addressing the weapons of mass destruction threat.

"DTRA is a combat agency that was very relevant to Sept. 11 and will continue to be very relevant to the country," Davis noted.

A lively and engaging speaker, well known for his candor and sense of humor, Davis is frequently asked to give talks, on subjects ranging from his experiences as a UN inspector in Iraq to his expertise in counterterrorism.

A Fellow of the American Physical Society, Davis has published more than 70 articles on nuclear physics, nuclear instrumentation and accelerator design and technology; holds three patents on analytical tech-

niques and applications; and twice received the Department of Defense's highest civilian award, the Distinguished Public Service Medal.

"Jay has had an extraordinarily diverse and productive Laboratory career. He was an excellent nuclear physicist, and one of the country's outstanding builders and project leaders in his work on RTNS-II and the CAMS facilities," said former Director Bruce Tarter. "He was a very effective Associate Director for Environmental Programs, and set the future direction for much of that program. Perhaps his highest impact came from his role as an on-the-ground inspector during the Gulf War, ultimately leading to his selection as the first Director of the Defense Threat Reduction Agency, an assignment in which he excelled in every respect. He continued many of these activities as a National Security Fellow here the Lab, and I expect more of this same subsequent to his official retirement."

With little fanfare, Davis retired from the Lab on June 27, but plans to return part-time in September. He's taking July and August off to "get through my list and Mary's list," he laughed.

"I have a vineyard to put in and I want to become more involved in my community. Having lived in Livermore all these years, it's time to give back," Davis said, adding that his first assignment will be with the library's literacy program where his wife is already a volunteer. "My wife is delighted. She can hardly wait."

When he returns to the Lab, he hopes to do mentoring and teaching. "I feel very strongly it is time to hand the Lab over to the next generation," Davis said. Although he does not yet have a specific assignment lined up, he said he will serve in whatever capacity Director Michael Anastasio needs him most.

He also has no shortage of work offers outside the Lab, chiefly from the CIA and the Department of Defense.

"I just need to stop answering the phone," he joked.

Retirement, he noted a week into it, is "sweeter than I could imagine."

Touching lives through grassroots Cancer Awareness Campaign

By Elizabeth Campos Rajs
NEWSLINE STAFF WRITER

For the second year in a row, a grassroots coalition of employees has organized a Cancer Awareness Campaign that will feature a number of informational talks on cancer-related topics, ranging from hormone replacement therapy to early detection of prostate cancer.

The campaign kicked off Wednesday with a talk on hormone replacement therapy by gynecologist Dr. Karen DeNevi and will continue through Aug. 29.

"The response last year was just phenomenal," said campaign chairman Mark Costella, ES&H operations/facility manager for EED. "We wanted to host this campaign again this year to share more information with our Lab colleagues."

There are four primary focus areas: cancer studies and research; men's health issues; women's health issues; and nutrition and health.

"We didn't want to repeat what we did last year. We wanted to continue on with what we started," Costella said. "We looked at last year's program to see which were the best attended presentations and evaluat-

ed what people would want to hear about this year."

This year's campaign also features a health screening fair on Tuesday that will include a number of outside health care providers on hand with information about cancer prevention, treatment and insurance coverage.

The LLNL cancer awareness quilt that was started last year by the Lab's quilting group, the Piecemakers, will also be on display. Employees submitted more than 300 patches for the quilt honor-

See CAMPAIGN, page 6



NEWS YOU CAN USE

BRIEFLY

Grapevine giving way to Lab portal

Starting Monday, MyLLNL will replace the Grapevine, offering increased capabilities for you to customize your access to the Laboratory's intranet.

At that time, when you go to the Grapevine URL, you will automatically be redirected to the new MyLLNL Portal. If you are using a browser unsupported by the Portal software, you will be redirected to a static text-based version of MyLLNL similar to the Grapevine Web page.

Several employees have contacted the Portal Support team with questions about the most appropriate system configuration to use MyLLNL. Detailed information about supported operating systems and browser configuration is available at <https://www-r.llnl.gov/portal/help/getstarted.htm#browser>

The MyLLNL Portal team will demonstrate the portal, including customization features, on July 25 from 1:30-3 p.m. in the Bldg. 543 auditorium. The demo will be followed by a ques-

tion-and-answer period. Additional information for users is available on the MyLLNL Help Center at <https://www-r.llnl.gov/portal/help/>. For any questions or concerns, contact the Portal Team at <mailto:portalhelp@llnl.gov>

Beryllium awareness training

The Hazards Control Department is distributing a booklet called Beryllium Awareness Biannual Refresher Training (HS4258-R) as part of LLNL's implementation of the Chronic Beryllium Disease Prevention Program. This training is required by federal law to be taken every two years by individuals who work at a site where beryllium is used.

Employees need to be aware of its presence and health risks even though they are not exposed to and do not work directly with beryllium.

The Beryllium Awareness Refresher Training provides information on:

- LLNL's Chronic Beryllium Disease

Prevention Program

- Properties and uses of beryllium
- Controlling beryllium exposure
- Health effects of beryllium
- LLNL beryllium monitoring

Reading the booklet meets the biannual refresher training requirement for HS4258, Beryllium Awareness. Upon receipt of the booklet, you automatically receive LTRAIN credit for completion of this training.

Please read the information in the booklet and complete and return the questionnaire on the last page so that Hazards Control can update its database on beryllium-associated workers.

If you prefer, you may receive credit for beryllium awareness training by going to the Hazards Control training Website at <http://www-hctrain.llnl.gov/>. Click on Web-based training and then on HS4258-W Beryllium Awareness. The course takes about 30 minutes to complete.

Technical Meeting Calendar

Monday
15

ELECTRONICS ENGINEERING TECHNOLOGIES

"Information Content of Data Types in Time-Domain Optical Tomography," by

Angel R. Pineda (interview candidate). 9:30 a.m., Bldg. 141, room 1104. Contact: Steve Azevedo, 2-8538.

CHEMISTRY & MATERIALS SCIENCE

"Aspects of Microstructural Evolution in Two-Phase Alloys," by Paula Crawford, Rensselaer Polytechnic Institute. 10 a.m., Bldg. 235, gold room (uncleared area). Contact: Mukul Kumar, 2-0600, or Roberta Marino, 3-7865.

Thursday
18

PHYSICS & ADVANCED TECHNOLOGIES

"B0 Lifetime and Mixing with Semileptonic Decays at BaBar," by Chih-Hsiang

Cheng, Stanford Linear Accelerator Center.

1:30 p.m., Bldg. 211, room 227. Contacts: Doug Wright, 3-2347, or Pat Smith 2-0920.

Monday
22

BIOLOGY & BIOTECHNOLOGY RESEARCH PROGRAM

"Structure and Molecular Mechanism of Novel Enzymes of Spore-forming Bacteria:

Genome-based Threat Agent Medical Countermeasures," by Mark J. Jedrzejas, associate scientist, Children's Hospital Oakland Research Institute, Oakland. 1:30 p.m., Bldg. 361, room 1155 (uncleared area). Contacts: Jim Felton, 2-5656 or Karen Fink 2-7295.

CHEMISTRY & MATERIALS SCIENCE

"Microstructural Evolution and Strengthening Mechanisms in Al-Sc and Al-Mg-Sc alloys," by Emmanuelle Marquis, Northwestern University. 10 a.m., Bldg. 235, gold room (uncleared area). Contact: Wayne King, 3-6547, or Roberta Marino, 3-7865.



MONDAY, AUG. 19-FRIDAY, AUG. 23

The Sixth IBM Scientific Computing User Group (ScicomP) meeting, hosted

by Lawrence Berkeley National Laboratory. For more information see <http://www.spsci-comp.org/ScicomP6/>. Early registration deadline is Monday, July 29, and proposals for user and vendor presentations must also be in by July 29. Contacts: Bronis de Supinski, bronis@llnl.gov or Tom DeBoni, TMDDeBoni@lbl.gov.

The deadline for the next Technical Meeting Calendar is noon, Wednesday.

Send your input to tmc-submit@llnl.gov. For information on electronic mail or the news-group llnl.meeting, contact the registrar at registrar@llnl.gov.

CAMPAIGN

Continued from page 5

ing family and friends who have had cancer.

"You never know when cancer is going to invade your life. It knows no bounds," said Costella, whose sister was diagnosed this past fall with uterine cancer. "Unfortunately, it's the unifier of us all at the Lab. It doesn't discriminate for race, religion, gender or orientation."

Following is the schedule for this summer's Cancer Awareness Campaign:

- Health Screening Fair, on Tuesday from 11:30 a.m. - 1:30 p.m., in the Health Services area.
- LLNL Symbolic Awareness Walk, 12:15-12:30 p.m., starting at Health Services.

- "LLNL Skin Cancer Melanoma Program and Sun Protection," by Dr. Jeffrey Schneider, derma-

tologist and Lab consultant, on Friday, July 26, from 12-1 p.m. in the Bldg. 123 auditorium. Schneider will offer practical tips on sun protection accompanied by a slide presentation on non-melanoma skin cancer, pre-cancers and melanoma. He will include the results of the Lab's melanoma screening campaign and the role of the Mole Patrol offered by Health Services.

- "Prostate Cancer — Guidelines for Early Detection and Risk Reduction," by Robert Cronbach of the American Cancer Society, on Tuesday, July 30, from 12-1 p.m. in Bldg. 170, room 1091.

- "Peregrine: Advancing the Field of Radiation Treatment of Cancer," by Lab physicist Christine Hartmann-Siantar, on Tuesday, Aug. 6, from 12-1 p.m. in the Bldg. 543 auditorium.

- "Update on the Cancer Incidence and Mortality Among LLNL employees," by Dr.

Jim Seward, LLNL medical director, and Dr. Mort Mendelsohn, former AD, on Tuesday, Aug. 13, from 12-1 p.m. in Bldg. 170, room 1091.

- "Does Overcooking Meat Pose a Cancer Risk?" by LLNL scientist James S. Felton, on Tuesday, Aug. 20, at noon in Bldg. 170, room 1091. He will present research that suggests it might be a cancer risk to overcook meat.

- "Prevention, Health Practices and Good Nutrition for Cancer Survivors," by registered dietitian Victoria Holmes Woolery of Kaiser Medical Center, on Thursday, Aug. 29, at noon in Bldg. 170, room 1091. She will discuss the role of medical nutrition therapy and intervention for cancer patients.

For more information on the events, contact Mark Costella at 2-8999 or costella2@llnl.gov.

CELEBRATING 50 YEARS



Looking back on the early days of Lab Engineering

By Don Johnston

NEWSLINE STAFF WRITER

Lunchtime excitement for engineers back in the early days of the Laboratory was a contest to be the first guy to hit 100 mph on East Avenue, recalled Hank McDonald, the first AD for the Engineering Directorate, during a “Then & Now” presentation titled “What Was It Like.”

At that time, East Avenue was a rural road and the Laboratory was well out of town. There was no cafeteria at the Lab and the “single guys” who didn’t “brown bag it” trekked into Livermore for lunch, McDonald said.

When he showed up for his first assignment as an electronics engineer, he remembered being issued a toolbox, containing a much-prized Boy Scout knife, and being told the box would have to be returned when he left the Lab. “When I retired 20 years later, I was really afraid they were going to ask me for that toolbox back,” he deadpanned.

The Navy barracks that housed Lab researchers had no air conditioning but were equipped with salt tablet dispensers for those hot summer days. “We drank water and ate salt tablets to stay cool,” McDonald said. “At the end of the day we had salt stains on our shirts. But no one complained.”

Duane Sewell, a former deputy director and an original Lab employee, reflected on the role Engineering played in the Laboratory’s evolution. Sewell was responsible for operational activities at the founding of the Laboratory, which included what is today Engineering, Plant Engineering and Environment, Safety and Health.

He described the contents of a letter written by Lab co-founder Edward Teller in April 1951. “There was a recognition on Edward Teller’s part that there would be a need for engineers at the Laboratory,” Sewell said.

“In my mind, one of the things that makes this Laboratory stand out from other labs is the quality of engineers,” he said. “The quality of the engineers is because of the quality of leadership.”

Ed Lafranchi, an electronics engineer who transferred from Lawrence Berkeley to the Lab in 1953, discussed the book he wrote, “History and Reflections of Engineering: The Flywheel of the Laboratory.” Lafranchi described a number of Engineering’s technical contributions to Lab projects, but singled out



FRANK NUNEZ/TID

Petey Pehrson, wife of deputy Engineering AD Dave Pehrson, offered a spouse’s view during Engineering’s “Then & Now” celebration.

the “metrology” — measurement — work conducted by Jim Bryan.

“This was in my view the number one contribution,” he said, explaining it led to the creation of the precision engineering program and made possible the development of the small nuclear weapons, such as the warhead for the submarine-launched Polaris, that put the Laboratory on the map.

Other precision engineering capabilities in optics and mirror grinding trace their origins to Bryan’s work on precision measurement. “Jim Bryan and his group reinvented the science of measurement,” Lafranchi said. “Their work had an impact throughout the nation and the world.”

The motto that emerged from the group’s work was:



FRANK NUNEZ/TID

From left: Duane Sewell, a founding father of Engineering at the Lab, and Hank McDonald, the first AD of the Engineering Directorate.

“You can’t make it if you can’t measure it.”

Petey Pehrson, wife of deputy Engineering AD Dave Pehrson, provided “A Spouse’s View” of the Laboratory community. She recalled how Dave responded to a small ad for an electronics engineer at Livermore in *The New York Times* and how they wavered on making the move from the East to the West Coast for the \$985 a month job.

She also remembered waiting for her husband to get his security clearance. “It was a day of celebration when you received your clearance and got promoted out of the cooler.”

As a spouse, Pehrson said, “I always appreciated being included in Lab events,” such as the Nevada Test Site “Family Days,” as well as the other activities the Lab organized to foster a sense of community among employees. “These events have kept me in contact with all the people we’d met over the years. It has been incredible fun.”

Dave Shikany, a mechanical engineer, presented aerial photos showing the dramatic development of the Livermore Valley from the late 1950s to the present day.

The “Then & Now” presentation concluded with a panel of storytellers including Roger Werne, former

Engineering AD; Randy Pico, a senior supervisor in Electronics Engineering; Gordon Longerbeam, an electronics engineer; Cecilia Larsen, who helped start up the new Lab; Chuck Hurley, one of the original Engineering employees who transferred from Lawrence Berkeley; and Roxana Greenman, an engineer in the New technologies Engineering Division.

(Copies of Ed Lafranchi’s history of Engineering may be borrowed from the Public Affairs Office, Trailer 6526.)

Engineering praised for leading Laboratory programs then and now

By Don Johnston

NEWSLINE STAFF WRITER

“Engineering carries the genetic code of the Laboratory,” said Bruce Tarter in an address to the Engineering Directorate’s “Then & Now” event, on his last day as director, June 28. “We are a physics and engineering laboratory.”

Between 1970, when the Engineering Directorate was created, into the 1990s, Engineering helped make the Laboratory “a more institutional kind of place” as it became more programmatically diverse.

“A major characteristic of the period between 1970-90 was that engineering led the Laboratory in so many respects,” Tarter said. “Whenever there was a new project, we would look for an engineer to lead it.

“Each time there was a big job to be done, we went to Engineering,” he said, citing as an example the selection of Harry Galles, an engineer, to lead the Environmental Protection Department when it was created.

The science and engineering team approach to work on big projects, such as the superconducting super-collider “created a model for what became the B Factory,” Tarter said, noting this served as a model for the Laboratory Directed Research and Development (LDRD) program.

Director Michael Anastasio spoke of present and future opportunities for the Lab in general and Engineering in particular. “Now is a time of great opportunity for the Laboratory with the importance of our work in stockpile stewardship and homeland security,” he said. “There’s an opportunity to expand our missions.”

However, “with opportunity comes challenges and we’ll need engineering to help us meet those challenges as they permeate everything we do,” Anastasio said.

Examples of current engineering challenges include making targets for the National Ignition Facility and “building detection systems that operate quickly, effectively and accurately in small packages,” he said. “It’s a question of how you do

that hard science and hard engineering.”

Stockpile stewardship also presents engineering challenges, Anastasio said. “We need to be able to build computational tools that accurately simulate weapon response to all the environments that it sees.”

Looking to the future, Anastasio noted that “the thing that makes this Laboratory great is the people. It’s because of people we’ve been able to accomplish so much.

“Who knows what challenges the next 50 years will bring,” he said. “Now we need to bring in the next generation and imbue them with the culture of the Laboratory to make sure we can meet the challenges of the future,” echoing Tarter’s view that “engineering is the genetic code of the Lab.”

Glenn Mara, AD for Engineering and master of ceremonies for the event, observed that “Engineering touches on every programmatic endeavor at the Lab” and that engineers have made transforming the “impossible into the doable a part of the Laboratory culture.”



NEWS OF NOTE

Handling emergency calls with great dispatch

After more than five years of study, the Alameda County Fire Department, Alameda County Emergency Medical Services Agency, Alameda City Fire Department and the Laboratory consolidated emergency dispatch services here at Livermore. This joint effort creates a unique amalgamation of DOE/UC/Fire District/county government/city government and emergency medical technicians. On June 27, participating agencies and local dignitaries toured the dispatch center (pictured at right), as dispatch supervisor Roland Eberle handles a call.

DAVID SCHWOEGLER/PUBLIC AFFAIRS



Discussing the elements of the Dubna-Livermore collaboration

The “Synthesis of Superheavy Elements — the Dubna–Livermore Collaboration,” will be presented as part of the Director’s Distinguished Lecturer Series, 3:30 p.m., Tuesday in the Bldg. 123 auditorium. Yuri Oganessian, of the Flerov Laboratory of Nuclear Reactions, Joint Institute for Nuclear Research in Dubna, Russia, will make the presentation.

Director Michael Anastasio invites all employees to attend.

In 1998, a collaboration of Russian and Livermore scientists at the Joint Institute for Nuclear Research in Dubna, Russia, created element 114, at the time the heaviest element detected, by bombarding a target of plutonium-244 with a calcium-48 ion beam. The first isotope of element 114 survived for 30 seconds, a huge lifetime when compared with that of element 112, which decayed a hundred thousand times faster.



Yuri Oganessian

Oganessian led the Russian members of the collaboration that synthesized element 114. According to Oganessian, a fundamental outcome

of modern nuclear theory is the prediction of an “island of stability” in the “sea” of highly unstable superheavy elements. The breakthrough synthesis of element 114, achieved at the end of a 40-day experiment, provided the first experimental evidence that seems to confirm this prediction. Oganessian will discuss the Dubna-Livermore collaboration and describe the evidence for the island of stability.

A leading scientist in the field of atomic and nuclear physics, Oganessian is a corresponding member of the Russian Academy of Sciences and is a member of the Nuclear Physics Board of the European Physical Society. He is the author of more than 250 scientific works, and his many awards include the Flerov Prize in 1993 and the Alexander von Humboldt Award in 1995.

The lecture will be broadcast on Lab Channel 2 Thursday, July 25, at 10 a.m., noon, 2, 4, and 8 p.m., and on Friday, July 26, at 4 a.m.

PECASE

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year by the National Science and Technology Council to recognize “outstanding scientists and engineers who, early in their careers, show exceptional potential for leadership.” Every government department that supports science work is allowed to nominate candidates for the award, and the Department of Energy nominates scientists in a number of ways.

“The DOE Office of Science allows Lab directors to nominate up to three employees,” spokeswoman Rokaya Al-Ayat explained. “Through the DOE Office of Defense Programs, we can nominate researchers who are employed at a university, but work with government labs.” Al-Ayat added that Herrmann and Ricker were nominated through the two different DOE offices – Herrmann through the Office of Science and Ricker through the Office of Defense Programs.

In addition to being directly employed by a national laboratory or having an association with one, PECASE nominees must be in the first five years of their career. They must be doing work funded by DOE, which “is innovative and contributes to a research project or has major significance to a scientific discipline.”

“You’re not nominated for a specific project or proposal,” Herrmann said. “Instead, you’re nominated based on the body of work you’ve contributed since

you began your career.”

Herrmann has been working with lasers in X Division for four years. He is currently working on projects dealing with inertial confinement fusion and inertial fusion energy. After earning his bachelor’s degree in physics from Washington University in St. Louis in 1991, he remained at Washington University to earn two master’s degrees in applied science and



Lab management recently honored its PECASE winners. From left are Bruce Goodwin, Rokaya Al-Ayat, Paul Ricker, Mark Herrmann, Director Michael Anastasio, Jeff Wadsworth and Bill Goldstein.

mathematics. In 1998, Herrmann earned his Ph.D. in astrophysical science at Princeton University.

“It’s an honor to even be nominated from this Lab,” Herrmann said. “There are so many people doing so many great things, that I was amazed to even get a nomination. To win is a great honor.”

Ricker is a computational astrophysicist at the Accelerated Strategic Computing Initiative (ASCI) Flash Center at the University of Chicago. Through the Lab’s ASCI Alliance program, his work in Chicago has complemented the Lab’s work with ASCI.

“This is a real honor to be singled out for something like this,” said Ricker. “In some ways, it’s almost embarrassing because the work has been dependent on a number of other people. But I’m pleased to be honored and I don’t think there’s anything I can do to top this.”

Ricker earned his bachelor’s degree in physics from Pennsylvania State University in 1991. He then earned both his master’s and Ph.D. in physics from the University of Chicago, in 1993 and 1996, respectively.

Other DOE winners are: Ian Anderson, Vincent Cianciolo and Jizhong Zhou, all of Oak Ridge National Laboratory; Kenneth Gall, University of Colorado at Boulder; and John Zhang, Georgia Institute of Technology.

TESTIMONY

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cially from weapons of mass destruction, is a very daunting challenge,” Anastasio said in his opening statement. “Science and technology will be a key weapon in this defense.” Using the example of the Biological Aerosol Sentry and Information System (BASIS) that was developed at the Lab, Anastasio noted the importance of having an end-goal in enhancing homeland security.

“When we think about the science and technology, it’s important to realize that we need some kind of centralized function that directly allows an integration, a focus and a prioritization of the research, development, testing and evaluation investments for both the near term and the long term,” Anastasio said. “If the Department of

Homeland Security chooses to locate some of their functions at Livermore, we would certainly be honored to have them there.”

Sen. Dianne Feinstein made several statements lauding the Lab for its work, but also wanted to ensure that existing intelligence functions would not be compromised by moving personnel or additional work.

“I am really delighted that Lawrence Livermore was chosen as a center of excellence in this program,” Feinstein said. “I think the administration is moving in the right direction here by targeting the DOE lab programs most directly related to homeland security for inclusion in the new department.”

Sen. Daniel Akaka (D-Hawaii) raised questions about the transfer of personnel and money from one department to another.

DIRECTOR

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That point was emphasized repeatedly during Director Michael Anastasio’s introductory address to employees last week. Anastasio met briefly with a full house of employees at the Bldg. 123 auditorium to offer his thoughts on the future of the Lab and what he will concentrate on during the next month. Anastasio’s address also was broadcast live on Lab TV.

“We have the opportunity to make more great things happen, whether it is in the programs, the science and technology, operations or the workforce,” Anastasio said. Just as the Lab has done in the last 50 years, the Lab must continue to embrace the culture established by E.O. Lawrence and Edward Teller, in which “great people of the Lab take their innovation and, working as teams, focus on the important problems of the nation.”

“...We need to demonstrate that this is a Laboratory that can make things happen.”

Anastasio urged employees to deliver on current commitments — ensuring the safety and security of the nuclear stockpile, work on the W80, the National Ignition Facility, nonproliferation programs, Yucca Mountain and EUV lithography, to

name a few. Yet he cited opportunities for expansion in “our programs in the areas of homeland security and in implementation of the Nuclear Posture Review.” For the longer term he mentioned such opportunities as advanced nuclear fuel cycles, fusion energy and ensuring adequate water resources.

Anastasio pointed out significant new capabilities coming on-line, among them, first light in the NIF target chamber scheduled for 2003, and in 2004, ASCI purple, the next-generation supercomputer that will perform 100 trillion operations per second— “an unprecedented capability.

“Marry this with expertise in physics, chemistry and biology and you can use computational simulations to understand biological function,” Anastasio said.

In Laboratory operations, Anastasio cited NNSA’s recent call to reduce bureaucracy, calling it a “challenge” that “starts with us. We must build on the excellent business, financial, safety and security systems — that in all reviews have come out looking good — and untangle the spider web of requirements and compliances that have come down upon us and tied us in knots.”

Anastasio said the Lab must also look for

“I’m concerned that a new focus on homeland security would mean that analysis of nonproliferation intelligence on Russian, Chinese and North Korean weapons of mass destruction will become less a priority.”

Brooks assured the committee that using Lab resources in the Department of Homeland Security would not hamper its current mission.

“The laboratory directors will retain the flexibility to assign people to projects as they need. So, what will happen is the scientists will still be doing the same work, but that work will be for a different department,” Brooks explained. “But the strength of the national laboratories and of the president’s proposal is that the laboratories are a synergistic organization, and we don’t propose to build any walls within the laboratories.”

opportunities to create a work environment that can attract the next generation of “exciting people” that will maintain and improve upon the levels of achievement over the past 50 years.

To do this, Anastasio said he was committed to implementing the recommendations cited in the recent employee survey. “We must create a work environment where everyone can contribute their best, an environment that will embrace all members of the workforce and allow everyone to succeed.”

Anastasio also took time out to thank outgoing Director Bruce Tarter, now the associate director at large, and Deputy Director Jeff Wadsworth, who will leave in August to take a position with Battelle, for their leadership and commitment to the Lab.

Over the next month, Anastasio said he was “determined” to meet with all directorates and programs, their senior management teams as well as a cross section of employees to understand the issues they face.

“This Lab can make great things happen if we extend our great traditions, improve upon them and seize the opportunities before us,” Anastasio summed up. “Let’s take this on, let’s make it happen and we can have another great 50 years.”

TAUSCHER

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various hospitals.

Last week, members of that task force met at the National Guard Armory in Walnut Creek to present some of their findings as well as costs for corrections and enhancements.

Because the Bay Area is a “target-rich region,” according to the 10th District congresswoman, Tauscher believes “we need to have an escape strategy. We need to know who’s in charge. We want a comprehensive program, and we can’t have a huge piece of the puzzle left out.”

But the situations “is not hopeless,” Tauscher added. “I don’t believe there is anything that can happen that we cannot solve.”

And that’s where Tauscher’s preparedness task force comes in, she said. Among the issues and solutions identified are:

- Communications — Currently law enforcement, fire protection and health services are unable to effectively communicate with each other during large-scale emergencies due to technological shortcomings as well as inadequate access to information from other jurisdictions. This was evident during the 1991 Oakland Hills fire, when police and fire crews could not communicate with each other due to incompatible systems. The solution, according to the task force, is an upgrade that would include interagency land mobile radios and corresponding support infrastructures that would provide compatible communications links.
- Personnel shortages — Law enforcement and fire protection agencies are often unable to implement important programs such as local emergency planning and counterterrorism training due to personnel shortages and limited training resources. The task force suggests a federally funded reserve system for public protection agencies analogous to

the National Guard to provide relief for such shortages during emergencies. Fire, police and health service personnel would be recruited by local organizations to reach a pre-determined staffing level. Training and utilization would occur locally, but would be federally funded.

- Hospitals — In the event of a biological, chemical or nuclear “event,” local hospitals are under-equipped to deal with a potential flood of contaminated and worried “well” patients who will seek immediate care. The task force proposes selected, strategic hospitals have expansion capabilities through the use of tents, collapsible buildings and other kinds of mobile medical facilities for the treatment of mass casualties. Equipment could be stored in central locations and distributed directly to affected locations, eliminating the threat of hospital contamination and possible closures.

- Jurisdictional coordination — Though all jurisdictions have extensive and diverse emergency response plans, many are on a small scale. Large-scale plans are expensive to prepare and implement, and many county and city coffers cannot cover such expenses. The task force recommends computer-based training exercises similar to those used by the military. For example, first responders’ actions can be identified and followed as the reactions to those responses progress through levels of command and government. From these actions and reactions, the effectiveness of emergency plans can be measured and evaluated for efficient coordination between multiple agencies. Military installations could also be included in such training exercises.

- Detection and response — Local emergency responders and health care providers do not have access to the latest technology for chemical, biological and nuclear threat detection that would keep the community safe as well as protect first responders from taking unnecessary health risks

when responding to emergencies. Tauscher suggests local agencies look to national laboratories such as LLNL and Sandia, who are “leaders” in the development of technology for nuclear threat detection and biodetection instrumentation. This technology should be made available to appropriate agencies.

Tauscher repeatedly praised labs such as LLNL for the experience its scientists and engineers bring to this area. She pointed out the Lab’s collaborative work with LANL on BASIS, a biological pathogen detection system that was used during the Winter Olympics in Salt Lake.

“These people helped win World War II, they helped win the Cold War and now they are helping us win the war on terrorism,” she said of LLNL.

Yet Tauscher allowed such solutions do not come without a price tag. For example, the communications issues alone could cost more than \$60 million. Tauscher pledged to somehow find the funding, pointing out \$37 billion in next year’s federal budget for homeland security.

“These are no longer nice-to-haves,” she said of the reinforcements needed. “They are have-to-haves.”

Tauscher then asked the committee to come back in 60 days with a “harder look” at the costs so procurement strategies can be developed.

“It’s an honor to be selected for this kind of work,” summed up Harry Vantine at the meeting’s end. “In preparing for any counterterrorism attack, response has to start at the local level.” Vantine added that the Lab itself is investing more in research and development to win the war on terrorism.

“There is much to do in this effort, but this is a start and the Lab is committed,” Vantine said. “We’re in this to stay.”



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Pentium III Laptop Computer 800 MHz, 20 GB HD, 256 MB RAM, 14.1 Active Matrix Display, 16 MB Video, asking \$1,300 OBO. 209-480-3279

Sony Playstation One, two collotters, gameshark, memory card, several games, \$75 925-292-0348

Mac Performa 575 computer, monitor and color printer. Nice for beginner or student. \$100.00 OBO 510-537-7222

Sony 27inch TV PIP remote. Works. I do not have cable but rabbit ears worked and video is good. \$75.00 obo. 925-240-7374

GIVEAWAY

GE TV, wood console-good condition. 925-447-1664

Singer model 690 deluxe zig-zag sewing machine, accessories, case, table/cabinet. Has mechanical problem. 209-836-4605

Free Moving Boxes, several sizes 650-578-9894

Free 6 mos. old Akita/shepherd mix male (N). Very good natured, good with kids. Needs time to be trained and room to run. 209-892-2557

Bedliner for 99-02 Chevy / GMC short bed pickup. U-haul 209-480-3279

Chest Freezer, Sears Cold Spot 10, 10.2 cu ft, compressor runs, needs recharge (?) 925-449-1550

FREE COUCH; Loveseat size, dk red tweed, good condition. U-pick up. 925-454-8874

Sony 5 disk CD player. With remote and owners book 209-957-3289

HOUSEHOLD

Ceiling Fan with light kit. White and gold. perfect condition. \$40 925-855-8087

Utility table with folding legs, formica top, about 6x3 ft. Excellent condition. \$25. King-size headboard, greenish/yellow. Good condition. \$30 OBO. 925-846-3653

MOVING SALE near Lab. Everything must go and I mean everything! Call to set up time to come by. 925-784-6556

5 drawer dresser dark stain 32L x 17W x 43H \$50, desk dark stain 41L x 29W x 31H \$50, both solid wood and good condition. 925-837-1770

Entertainment Ctr. Wood, Hunter green, 55inW X 45inT X 22inD, Holds 36in TV, \$200.00 Evap. Cooler, 4200CFM, 1yr old, \$200.00 209-839-9229

Murry lawn mower, Low hours, 5hp, Large rear wheels, side discharge. \$65 209-606-6445

Small barbecue, perfect for apartment, trunk, boat for picnics, \$20. Bell jars, assorted sizes and styles, \$10 for all. 510-351-0969

GE Hotpoint washer & electric dryer, almond, 14 years old but still work well, \$125 or BO for pair. 925-443-6706

Gas Dryer, Whirlpool, heavy duty 7 cycle. Very good condition \$50. 925-443-6149

Older items cheap! Electric chain saw, air compressor, drill, gutter blower, BBQ, electric kiln. Best offer for one or more. 925-447-3281

Single 4 poster bed w/separte 3 drawer unit that fits under the bed, pine, good condition, \$225.00 925-846-4221

Curio cabinet with 4 shelves, dark wood. 36 inch W X 34 inch H, shelves 7 to 9 inches deep. \$40 OBO. I have photo I can forward to you. 925-455-4846

2 Kenmore Washing Machines, 1 Mont. Ward Dryer \$25 each. All in working condition. 209-483-1014

Dishwasher, built-in, Regency, all white, fully functional, \$90/B.O. 925-443-3106

Baby changing table, new condition, blond hard wood, 1 drawer, 2 shelves, safety latches. \$75. 925-449-5614

See complete classified ad listings at <https://www-ais.llnl.gov/newsline/ads/>

Child Craft Crib and Changing Table. Sharp style w/ high arches. White wash finish. \$200. Extra Long Twin Mattress/Box Springs/Frame \$75 209-833-9141

Dining table with 4 chairs solid hardwood. 48x30 \$75 925-516-8339

Oak Entertainment Center w/glass doors, cabinet f/large TV, videos, stereo, DVD, VCR, more, \$450 or BO 925-371-0789

Misc. hosehold items: Drop leaf table \$25, Sears lrg capacity Washing machine 3 yrs old \$75, antique trunk \$40, single bed on frame w/drawers \$50. 925-634-7861

Sofa and Rocker/Recliner: Sofa - \$150; Rocker/Recliner - \$75. 925-449-7651

Brass&Glass coffee Table&end table \$35;Lamp\$20.(2)chairs \$20 and \$50.Desk with Chair \$50.Call eves: 925-828-6568

Hutch, beautiful honey oak, \$500.00. 209-814-1606

Sofa/hide-a-bed. Seats 2. Green check plaid. excellent condition. \$200 925-447-5144

Oak dinette set with four chairs. Eexcellent condition. \$300 or BO. Queen-size leather sofa/sleeper-black. Excellent condition.\$400 or BO. 925-373-2830

Frederic Raymond light fixture, octagon shaped. Like new, \$400. 925-447-3677

Almost New, Top of the Line Washer: Kenmore Series 80 w/Super Capacity and Quiet Pak. Very quiet - a dream to use @just \$200 (was \$425)! 925-373-0795

LOST & FOUND

Lost: Very old Peugeot green 10speed bike. Identifiable by an oversize black touring seat. Last seen parked by Bldg 132S. 510-525-6224

MISCELLANEOUS

Samsonite 24 inch hardside suitcase (wineberry) \$35 925-447-8613

2 light Oak bar stools - Tall, excellent condition, Orig. \$90, sell \$35 each 925-998-2620

Baby items-car seats, wood cribs, wood changing table w/ shelves, high-chair, stroller 209-832-2862

New Motor Cycle Helmet [Black] All certifications [DOT etc.] Cost 250.00 - Sale 125.00 925-778-4641

Hot Tub California Classic Hot Springs. Many new components, like new, new cover, pump, heater. \$2000 925-449-5078

Above ground pool, 16ft round sand filter and pump. New liner needed. Installation available New \$1600 asking \$400 B.O. 925-443-4848

49ERS EXHIBITION GAME TICKETS Sat., Aug. 10 vs. KC, 6:00 pm, Wed., Aug 28 vs. SD, 6:00 pm, 4 Tickets, Sec. 52, \$29 per ticket (Half of face value) 510-656-8454

Eucalyptus Trees (not Silver Dollar) 4ft tall 2 yrs old 5 gal, very fast growing, 2 for \$10 925-447-6192

Patio furniture, white, excellent condition, table, 6 chairs, umbrella, expensive cushions, in Milpitas 408-263-8822

Various baby equipment, clothes, and toys, plus maternity clothes. Call for details. 925-454-8827

Mens sportcoat, Bella Nora brand, Navy color. Worn twice, paid \$250 at Nordstroms. \$50. 925-648-0671

Toddler swing-Fisher Price liftnlok, like new \$10, covered sandbox \$15, Ride-on vehicles, puzzles, more. 925-454-0877

Amana Refridgerator \$150. Works Great! 209-483-1014

Tonka Trucks & Crane, Fisher Price Castle & Ship w/ action figures, other rarely used (like new) boys toys. Little Tikes Rocking Boat. 209-833-9141

Malaysian handmade basket, like those used to carry supplies up Mt. Kinabalu. \$30. 510-351-0969

Garage sale to benefit 1st Pres. Church Girls Circle, July 13 at 6303 Half Dome Way, Livermore. 925-373-9632

Loft Bed with desk underneath. Desk has room for computer monitor, keyboard, and CPU. Twin size, perfect for teen room or college. \$500. 925-455-6516

John Deere 68 riding lawn mower. New governor. \$500. call after 5pm. 209-847-8264

Velux skylight with roof flashing package. Size 30 5/8 inches by 55 inches. Low-E gas filled, brand new still in box. New \$320.00 asking \$200.00. 925-606-6338

BABYSITTER AVAILABLE to come to your home (Livermore, Antioch, Brentwood, Pittsburg area)Full-time/Part-time.Reasonable rates. 925-754-7090

Garage Sale. July 13th. 9 AM to Noon. 1226 Asti Ct. Livermore. Take Holmes St. to Paris to Asti Ct. 925-447-3780

Rainbow systems swing set. Excellent condition.\$1000 I haul, \$700 you haul 925-978-0808

Blue crushed velvet Chair \$50. 2 night stands \$15 each.Chair \$15. Call Eves: 925-828-6568

MOTORCYCLES

1972 - Bultaco Lobito Mod. 84. 175cc, two-stroke, street-legal enduro.\$350.Bultaco Alpina Mod. 85-engine, carb, frame and swingarm. \$200. or both \$500. 925-600-1817

2000 - Honda XR400, less than 1K miles, \$4000 925-449-5078

1987 - Kawasaki XZ750R 10k mi, new tires, new chain and sprockets (in a box), been sitting & carbs need cleaning \$2500 925-449-7009

1983 - Honda Nighthawk, 550cc. Great shape. Lowered and customized. \$1200. Or offer. 925-449-5441

1975 - Yamaha XS650 twin, Classic British style, low miles, new tires, battery, runs looks great, \$1700.00. 408-263-8822

1985 - Honda Rebel 250cc. Low miles and great shape. \$900 or B/O. 510-791-8623

2000 - Honda XR600 Excellent condition. Too many upgrades and extras to list plus all stock parts. Call for info \$4200/OBO 925-606-6338

1992 - Honda ST1100. Beautiful Red. Very good condition. 43k miles. Many extras. \$5500 OBO 925-449-0140

MUSIC INSTRUMENTS

Student flute, Gemeinhardt, silver plated head body and footjoint, with case, used only one school year, \$200. 925-455-8238

Hohner Folk Guitar New \$200 Like new \$125 209-599-8422

PETS & SUPPLIES

CAT- long fur pretty markings, family pet must find new home. Fixed, tested with shots. Money back guarantee. Call for details. 925-828-8939

6 month old hampshire pig, 235 lbs, \$600 OBO, call 925-454-0496

Akita for Sale. Female, 1yr,AKC,Show quality, Red Brindle,3/4 Import,Champion lines. \$600 nego. 209-629-3630

Dogloo dog house for larger dog. \$50 obo 209-480-3279

FREE Purebred Labs 1yr(1 Chocolate/1 Yellow). These guys need a family that can spend the time with them. Great with kids. Some obedience training. 209-832-7971

Free to a good home, 4 year-old male tiger striped parakeet. Must have a companion. 925-373-8317

ACQUARIUM - 180 gal 6ft.X2ft.X2ft. with Bioball filter system, 2 heaters. Oak stand included. \$750.00 OBO 209-823-0376

Four year old female Queensland Healer/Lab mix, free to good home. House trained, good with kids, and all shots up to date. 925-443-0902

Retiring



THE BACK PAGE

New appointments announced for Director's Office

Director Michael Anastasio has appointed ADs Glenn Mara and Hal Graboske to the Director's Office, while Jens Mahler will return as acting AD for Engineering.

"Over the next few weeks, I will be putting my senior management team in place," Anastasio said in an e-mail message to employees Wednesday. "As part of this process, I will be meeting with each Laboratory directorate, cross-sections of employees, the Laboratory's senior managers, the NNSA/DOE and UC. Open positions in my senior management team will be posted as they develop."

In order to help ensure the smooth functioning of the Laboratory during the interim period until these positions are filled, Anastasio made the following appointments, effective immediately:

Acting deputy director for Operations —

Glenn Mara becomes the acting deputy director for Operations (DD/O), integrating operational issues and improving efficiencies across the Lab. Mara will be responsible for all operational aspects and elements of the Laboratory and assure the Lab's performance meets all operational requirements and regulations.

"Glenn has been the associate director for Engineering since February 2002. He has more than 30 years of engineering and national security program experience at the Laboratory, and has held various management positions for more than 20 years," Anastasio said.

Acting associate director for Engineering —

Jens Mahler will resume the title of acting associate director for Engineering. This is a role

Mahler "most ably filled" for several months, from November 2001 until Mara was selected to fill the position in February 2002, Anastasio said.

Special assistant to the Director —

Hal Graboske will become Anastasio's special assistant to provide consultation and advice on the Laboratory's science and technology activities, capabilities and investments. Graboske will continue as associate director for Chemistry & Materials Science until his successor has been approved by UC.

Anastasio thanked Mara, Mahler and Graboske for their "enthusiasm and willingness to help me through this transition. I also would like to thank everyone who has provided support, advice and comments since my appointment. I look forward to continuing to hear from you."

CLIMATE

Continued from page 1

miles), which limits their ability to simulate climate and climate change on a regional scale. For example, with these lower resolutions it is difficult to assess climate changes, and the resulting societal impacts, in the climatically varying regions within California.

Using the ASCI White machine when it was in an unclassified environment, TC2K (Compaq) and Frost (IBM) machines and two Department of Energy supercomputers, Lab scientists increased their model resolution to roughly 50 km so that they have 32 times more grid cells and require about 200 times more computer processing time than comparable simulations at 300-km resolution.

"While higher resolutions have been used in weather prediction simulations before, those typically only cover several days," said Philip Duffy, group leader of LLNL's Climate System Modeling Group in the Atmospheric Science Division and key author of a paper on the subject. "The Lab's climate simulations span years."

The Lab's climate simulations are global and span roughly 10 simulated years.

A two-part paper describing the results has been submitted to Climate Dynamics. Co-authors include LLNL researchers Bala Govindasamy, Jose Milovich, Karl Taylor, Michael Wehner and Starley Thompson.

The high-resolution global climate simulations have been funded in part by the LLNL

Laboratory-Directed Research and Development (LDRD) Program, and in part by the DOE's Climate Change Prediction Program.

The 50-km resolution simulations more closely mirror the present climate than do comparable coarse-resolution simulations, Duffy said.

Researchers from Livermore's Program for Climate Model Diagnosis and Intercomparison (PCMDI) compared the high-resolution present climate simulations to observations and to results of simulations at coarse resolution (300 km). They determined that increasing the resolution brings very significant improvements in the model's ability to simulate large-scale features of climate.

To show the effects of greenhouse gases on future climate, Livermore researchers ran models at 300-km and 75-km resolutions. Because they represent a possible future climate, the model results cannot be evaluated by comparing them to observations. The results indicate that globally averaged climate changes are very similar in the 75-km and 300-km models. However, predicted climate changes in specific geographical regions can be very different in the high-resolution simulations.

"Our higher resolution global climate simulations can be used to provide information on many of the most important societal impacts of climate changes, such as the impacts on water resource management, agriculture and human health," Duffy said. "We hope to improve the realism of the models and produce better predictions of future climate on both global and regional scales."

Alameda County Board to vacate East Avenue portion

On a 4-0 vote, the Alameda County Board of Supervisors approved on Tuesday DOE's request to vacate its roadway easement to the portion of East Avenue between Lawrence Livermore and Sandia national laboratories. The vote will allow DOE, Lawrence Livermore and Sandia to assume access control and implement security improvements.

Before calling for a vote, Supervisor Scott Haggerty praised Livermore and Sandia labs for their extensive outreach with neighbors, calling the process "a model" for similar facilities that need to work with the community. "... your neighbors saw the merit of this," Haggerty said. "It is a credit to the outreach you did."

Haggerty also commended Community Relations Manager Barry Schrader of the Public Affairs Office, for his extensive outreach with neighbors along Greenville and Vasco roads.

Although the federal government owns the underlying property, an easement was given to the County of Alameda many years ago for use as a public roadway. Now that the county has vacated its easement, it is anticipated that entry portals, road improvements and a new truck inspection station will begin construction later this year pending availability of funding.

From Teller to teraflops



JOSEPH MARTINEZ/TID

From left: John Toole, director of the Computer History Museum at Moffett Field, Director Emeritus Edward Teller and Dona Crawford, AD for Computation. Teller spoke briefly before Toole's presentation Thursday, "Preserving Computing History: From Teller to Teraflops." After the presentation Toole attended the ceremony dedicating the LLNL Computer Museum in Bldg. 439. Look for additional coverage in next week's Newsline.



Newsline
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